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Applicant: Robert Giannini
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Title: MERGED IMAGES VIEWED VIA A VIRTUAL STORAGE CLOSET

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CERTIFICATE UNDER 37 CFR 1.10

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By: Keri J. Kuhlmann
Name: Keri J. Kuhlmann

BOX PATENT APPLICATION

Assistant Commissioner for Patents
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Sir:

We are transmitting herewith the attached:

- ☒ Transmittal sheet containing Certificate under 37 CFR 1.10.
- ☒ Patent Application: Pages Numbered 1-14; 17 claims; Abstract 1 pg.
- ☒ 2 sheets of informal drawings
- ☒ An executed Declaration
- ☒ Assignment of the invention to Jarbridge, Inc., Recordation Form Cover Sheet
- ☒ Please charge Deposit Account No. 50-0996 (JARB.003PA) in the amount of \$1120.00.
(\$1080.00 for the filing fee and \$40.00 for the Assignment Recordation Fee.)
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Fee for total number of claims in excess of 20 = \$18 * (17-20) = \$0.00

Fee for the total number of independent claims in excess of 3 = \$78 * (3-8) = \$390.00

Total fee due = \$1080.00

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MERGED IMAGES VIEWED VIA A VIRTUAL STORAGE CLOSET

Invented by: Robert Giannini
Residing at: 101-42 E. Shearwater Court, Port Liberty
Jersey City, New Jersey 07305
Assigned to: Jarbridge, Inc.

Related Patent Document

This application is based on, and claims priority to, U.S. Provisional Patent Applications, Nos. 60/159,476 and 60/167,493, respectively filed October 14, 1999 (GIAN.002P1) and November 24, 1999 (GIAN.003P1). Provisional Application No. 60/159,476 has been converted into U.S. Application No. 09/515,354 (GIAN.002PA), filed February 29, 2000.

Field of the Invention

The present invention relates generally to e-commerce and, more specifically, to use of linked web servers sites for on-line shopping.

Background of the Invention

The consumer in today's market is limited to a particular retailer's or department store's inventory, selection and styles. Traditionally, a consumer shops for items from different stores with the anticipation and hope that the items will coordinate. Alternatively, a consumer will wait for an opportunity to try on all the different items purchased and return those items that do not coordinate. Recent technological advances have attempted to enhance the shopping ability through the use of e-commerce, sometimes referred to as "online buying" or "online shopping."

There are differences inherent between "online buying" and "online shopping" in that current e-commerce transactions are based on the individual buying goods or services online that they have either decided to buy prior to logging on to the internet or find as a result of bargain hunting on the internet. There is very little, if any, true shopping on the internet. Most women define shopping as an "experience" "fun" "exciting" and the like. True shopping is going to a mall or department store with the intention of buying yet to be determined goods or services. Few consumers are getting on the internet with the same mindset that they have before they

physically go shopping. It is the difference between logging onto the internet to buy an additional pair of Levi's Jeans and going shopping and then coming home with 2 pairs of Levi's Jeans, a belt, 2 sweaters and 2 shirts.

Amazon, for instance, tries to recreate the "shopping experience" by offering reviews by other customers and suggestions for other books which may interest the shopper based on the book the consumer is currently purchasing.

Summary of the Invention

One aspect of the present invention is generally directed to a method for on-line viewing of an article previously stored in a virtual closet (*e.g.*, an apparel closet) on another structure. An example implementation of this aspect of the present invention includes: providing a host-site accessible to an on-line viewer and web-linkable to at least one article-provider site, the article provider-site having images of articles for view via the web. The on-line viewer is linked to the host-site and to a virtual closet maintained by the host-site. The host-site selects a structure in response to a command received by the on-line viewer, and using the host-site, the viewer is linked to the at least one article-provider site and images (including those in the virtual closet) are passed from that site for view by the on-line viewer; and merging a selected one of the articles with the structure by forming an image including representations of both the structure and the selected article.

Another aspect of the present invention is directed to addressing one of the most crucial features missing when one attempts to shop for clothing and accessories online; this feature is the ability to try the different items on oneself. In addition to the portal concept, this aspect of the present invention more clearly identifies to the consumer the problem, by personalizing and enhancing the "shopping experience" by allowing the consumer to have their own "internet mirror" or "internet fitting room." A personalized, secure environment is created which permits the consumer to truly "shop" at their leisure and convenience. An optional feature allows each user a certain amount of storage capacity, referred to as a "closet," where the user can store different items from multiple stores as they move from store to store, each time bringing back different items to mix and match, coordinate and so on. This storage space allows the consumer to put items "on hold" for a limited period of time without purchasing them. This feature allows

consumers to return at a later date and purchase these items and continue shopping for other items without starting the whole process over again.

The above-mentioned main feature is a “ body-registry” which enables individuals in purchasing clothing and accessories online to have an enhanced shopping experience by having a “closet” with both their previous and potential purchases to mix and match and create new outfits. For instance, a woman could go to this virtual “closet” and pull out her favorite article (e.g., shirt) and go shopping for a new skirt, shoes, earrings and purse to create a “new outfit.”

Another embodiment has fashion advice with latest fashions and styles and links to the retailers that carry those fashions. Retailers could be invited to write-up the commentary or nationally-known magazines may want to offer their fashion advice online.

In another specific embodiment a question and answer section answers common questions such as “What goes with...?” and others. The fashion advice section as it grows includes a search section that would allow the consumer to find past articles relating to their particular interest.

In yet another specific embodiment, a review section, set up by topics, enables a consumer to relate his or her retail experiences, both good and bad, talk fashion and style, give advice, or to talk about items of interest.

The above-identified feature allow a consumer to walk through an entire mall (or different malls) of stores picking and choosing selected item(s) to build the ultimate outfit or wardrobe. A consumer may pause, store, put-on-hold, and shop twenty-four hours per day at his or her convenience.

A more particular example embodiment of the present invention is directed to a method of on-line apparel shopping. The method includes providing a host-site accessible to an on-line viewer (e.g., customer) and web-linkable to an entity, such as a retailer, having an apparel site.

The retailer’s apparel site has images of articles such as apparel for viewing over the web, and the on-line viewer is linked to the host-site. The consumer selects a structure, such as a photograph of a person captured in system memory, in response to a command received by the on-line viewer. Using the host-site, the viewer or customer is linked to the retailer’s apparel site and images are passed from that site for view by the customer. Apparel is selected and virtually

merged with the structure by forming an image including representations of both the structure and the selected apparel.

The above summary of the present invention is not intended to describe each illustrated embodiment or every implementation of the present invention. The figures in the detailed description that follow more particularly exemplify these embodiments.

Brief Description of the Drawings

The invention may be more completely understood in consideration of the following detailed description of various embodiments of the invention in connection with the accompanying drawings, in which:

FIG. 1 illustrates a block diagram of a system for implementing the present system in accordance with one example embodiment of the invention; and

FIG. 2 is a flowchart of an example manner for implementing one aspect of the present invention.

While the invention is amenable to various modifications and alternative forms, specifics thereof have been shown by way of example in the drawings and will be described in detail. It should be understood, however, that the intention is not to limit the invention to the particular embodiments described. On the contrary, the intention is to cover all modifications, equivalents, and alternatives falling within the spirit and scope of the invention as defined by the appended claims.

Detailed Description

The present invention is generally directed to a method and system involving e-commerce over interconnected communication networks such as those currently known as the Internet. The present invention is particularly suited for conveniently bringing virtual apparel into customers' respective homes and permitting customers to try on the apparel before accepting/purchasing the apparel. While the present invention is not necessarily so limited, a better understanding of the invention will be found by reading the detailed description and exemplary embodiments that follow.

Figure 1 illustrates an example embodiment of a method and system for implementing the present system. The system includes a host application server 101 including several example functional blocks. These blocks include a block 102 that merges two images A and B (e.g. corresponding to a personalized or generic article identified by the on-line shopper, and a foundation or structure image to be merged with the identified article). Another block 103 permits merging of images selected from A, B, and/or articles previously stored in a "closet," depicted as block 105. Another block 107 includes personalized images and an inventory of generic images corresponding to the foundation or structure. A revenue generator block 109 provides fee generation from on-line shoppers who subscribe to the host application server per on-line or off-line agreement, and/or fee generation from retailers (or sellers) and others such as magazine publishers desiring participation and benefit from the system of Figure 1.

The on-line shopper uses a PC or intelligent black box 112 to access the host application server 101. Through this access, the on-line shopper either selects a generic structure from an inquiry of such structures provided by block 107 or provides a personalized image (for example, a scanned image of himself or of his house) to be used as the structure. Using the host application server 101, the on-line shopper is coupled through the web to a seller, depicted at block 114. Images of selectable articles are communicated back to the on-line shopper over the web and through the host application server 101. The on-line shopper selects one or more articles from at least one of the sellers for storage in the closet 105, and/or for merging with the previously-selected structure. Similarly, the structure can be changed per a command from the on-line shopper so as to merge the selected article(s) with different structures. In response, the host application server 101 processes images corresponding to the article and structure and generates a new image including representations of both the structure and the article.

Figure 2 is a flow chart of an example process for implementing the example system of Figure 1, according to the present invention. As discussed above, after accessing the host application server 201, optionally the host application server verifies registration/payment as is conventional with current on-line shopping as depicted at 201a. At block 204 the structure or foundation is selected as discussed above, and at block 206a the link is made to the seller. At block 208 the article(s) is viewed by the on-line shopper and, optionally, a selection of a color

and/or size for the article is made. Next, the on-line shopper selects the article as a candidate for storage in the closet and/or for merging with the structure.

At block 210 the on-line shopper instructs the host application server to store the article in the closet by returning to block 204, merge with the structure as depicted at block 212, or
5 return to block 206 for linking to the same seller or another seller for additional viewing.

From block 212 flow proceeds to block 214 where the new image is created per the merger instruction.

Next, at block 216, the new image is sent for viewing to the on-line shopper.

At block 218 the on-line shopper chooses one of multiple options. Either the closet is
10 accessed and the on-line shopper returns to block 204, or an election is made to purchase the article and/or other articles that may have been stored in the closet as depicted in block 220. From block 220, flow proceeds to block 222 where the on-line shopper decides to return to block 204 or end the transaction.

Example articles can be: A) clothing; B) paint ; C) furniture; D) glassware; E)
15 landscaping; F) orthodontic and teeth ware; G) cabinetry; H) plastic-surgery type enhancements; I) car/person.

Example foundation for merger with corresponding article(s) can be: a) person, pet; b) house, cars, etc.; c) house, cars, office, etc.; d) kitchen, face; e) yard; f) mouth; g) rooms in office/house; h) person (chest, face, belly, etc.); I) person/car.

20 In another example embodiment according to the present invention, an important advantage relating to color matching is achieved using a commonly-used color standard that covers sufficient color variations to permit various articles to be matched to one another. In one more specific embodiment, an industry color-standardization scheme is used. Examples include: Exxel Color Match Guide (see <http://sharones.com/prod013234.htm>) and Color match Chart
25 (http://www.csprings.com/aero_lettering/c_match.htm). More sophisticated color standardization schemes include the above examples in combination with equipment specifically identifying a frequency range corresponding to the color of the article in question or the equipment approach by itself.

Example equipment of this type includes optics-based detectors adapted to provide a
30 measured (color) frequency in a given light condition/environment. For example, white light

may be used along with selected background materials characterized within certain selected ranges of reflectivity. Other definitional parameters needed and/or useful in connection therewith will be apparent to those skilled in the art.

In a particular application, the color frequencies measured for the articles to be matched are reported and provided in the form of a tag that is carried with the article, electronically for the web server shopping function and, optionally, as a supplemental hard-copy coded label (*e.g.*, as part of or as a supplementation to the coding used on a bar code label). In a more particular implementation involving this use as part of the bar code label, the conventional bar code scanners and bar code generators are modified and adapted to receive the color frequency of the article and to conveniently report the color frequency in conjunction with the electronic shopping function and/or the conventional/reality shopping applications.

In yet another more specific embodiment, the closet of selected articles (as described for example in connection with block 105 of Fig. 1) is electronically defined using a partial-data set corresponding to each of the closeted articles. In one application thereof, the partial-data set comprises an outline definition of each of the articles along with the color frequency codes linked to the various sections of each article, as necessary to fully define the article in terms of article shape and color. Further, the size of the article is also stored as part of the partial-data set. Collectively, these various pieces advantageously define all needed aspects of each article in the closet without having to consume excessive amounts of memory and without requiring excessive processing to recreate the article for view by the user.

The virtual closet discussed above in connection with Fig. 1 can be used to permit the shopper to buy or hold (without buying) an article and subsequently retrieving the article for matching to other articles in terms of structure, size, color and other stylistic aspects. In applications concerned with limited memory bandwidth, the host application can provide a maximum amount of storage space for each shopper, with additional storage space being provided for a fee. These data stored in such memory is limited to a fixed-period, *e.g.*, one month, with extensions being provided for yet additional consideration, such as a monthly fee or purchases of items stored in the closet during an immediately preceding period. This approach advantageously encourages the shoppers to revisit the host application repeatedly to access their

personalized virtual closet, and advantageously provides on-going advertising for (which is also optionally billed on a related, on-going basis to) the seller/retailers.

According to another aspect of the present invention, on-line shoppers (for example 112 of Fig. 1) are provided a number of selectable icons or other data permitting feedback from the host/server (for example 101 of Fig. 1). Examples include: expert fashion advice (*e.g.*, professional consultants employed by the retailers (for example sellers 114 of Fig. 1), outside fashion consultants and/or employees of the entity providing the host application (101 of Fig. 1); on-line offers from the sellers (discounts, sales, etc.); updates on up-coming styles, colors, the most recent and hottest fashions. Each of these various offerings is optionally categorized for convenient selection by the shopper/user, for example, by category, style, activities, retailers. Advantageously, this application permits the host application to provide the sellers unique demographic information pertaining to particular customers' interests, selection trends and other data useful in attracting the shoppers to the retailers.

For convenience to the shoppers, a feedback icon can be used to provide a "favorite retailers" list to be defined by each shopper. When the shopper logs on to the host application, any of these favorite retailers can be immediately linked to for various uses. Examples include: reviewing closeted items and making changes thereto for a particular retailer, checking sales at that particular retailer and/or continuing to shop at a particular retailer without being required to return to the host application web site. Further, as a shopper links from retailer to retailer (the "Favorites"), a "shopping basket" can be selected and filled as the shopper accesses the articles

According to another important aspect of the present invention, the host application includes a search engine that searches selected, or all, participating sellers/retailers for particular merchandise, as identified by the on-line shopper. In one implementation, this service is provided to the shopper using a selectable icon or other feedback data as discussed above. At this point, the host application can: list all such retailers and allow the shopper to link to their web site; virtually pull the item from the respective web sites and allow the shopper to "try on" the article or store it in the closet (with a variation which optionally permits the shopper to change the size and color); and/or a combination of these approaches.

Implementation of the merging function can be accomplished using one or more of a variety of currently-available methods. Examples of such methods include those used in connection with web sites:

www.virtualmakeover.com, and www.segasoft.com/customer/index.html.

- 5 Other example implementations are described and illustrated in U.S. Patent No. 5,930,769 entitled, "System and Method for Fashion Shopping." Various types of software and hardware can be used to implement each aspect of the system and method described.

As noted above, the present invention is applicable to a number of techniques for merging various types of structures, or foundations, with one or more corresponding articles. The present
10 invention should not be considered limited to the particular examples described above, but rather should be understood to cover all aspects of the invention as fairly set out in the attached claims. For example, the present invention could be characterized as covering one or more of the above characterized features. Accordingly, various modifications, equivalent processes, as well as numerous structures to which the present invention may be applicable will be readily apparent to
15 the skilled artisan upon review of the present specification.

I claim:

1 1. A method for on-line viewing of an article on another structure, comprising:
2 providing a host-site accessible to an on-line viewer and web-linkable to at least one
3 article-provider site, the article provider-site having images of articles for view via the web;
4 linking the on-line viewer to the host-site and selecting a structure in response to a
5 command received by the on-line viewer;
6 using the host-site, linking the viewer to the at least one article-provider site and passing
7 images from that site for view by the on-line viewer;
8 closeting partial-data sets respectively corresponding to different ones of the articles;
9 generating a new image by merging representations of the different ones of the articles
10 with the structure by forming an image of a merged item including representations of both the
11 structure and the selected article.

1 2. The method of claim 1, wherein the partial data sets include a size code.

1 3. The method of claim 1, wherein the partial data sets include a code identifying a style.

1 4. An arrangement for on-line viewing of an article on another structure, comprising:
2 means for providing a host computer accessible to an on-line viewer and web-linkable to
3 at least one article-provider site, the article provider-site having images of articles for view via
4 the web;

5 means for linking the on-line viewer to the host-site and selecting a structure in response
6 to a command received by the on-line viewer;

7 using the host computer, means for linking the viewer to the at least one article-provider
8 site and passing images from that site for view by the on-line viewer;

9 means for closeting partial-data sets respectively corresponding to different ones of the
10 articles;

11 means for generating a new image by merging representations of the different ones of the
12 articles with the structure by forming an image of a merged item including representations of
13 both the structure and the selected article.

1 5. A method for on-line viewing of an article on another structure, comprising:

2 providing a host-site accessible to an on-line viewer and web-linkable to at least one
3 article-provider site, the article provider-site having images of articles for view via the web;

4 linking the on-line viewer to the host-site and selecting a structure in response to a
5 command received from the on-line viewer;

6 using the host-site, linking the viewer to the at least one article-provider site and passing
7 at least one image from a virtual storage closet at that site for view by the on-line viewer;

8 merging a selected one of the articles with the structure by forming an image of a merged
9 item including representations of both the structure and the selected article.

1 6. An arrangement for on-line viewing of an article on another structure, comprising:

2 a communication link;

3 a host-site accessible to an on-line viewer over the communication link and web-linkable
4 to at least one article-provider site, the article provider-site having images of articles for view via
5 the web, the communication link configured and arranged to link the on-line viewer to the host-

6 site and the select a structure in response to a command received from the on-line viewer, the
7 host-site linking the viewer to the at least one article-provider site and passing images from that
8 site for view by the on-line viewer;

9 a virtual closet for storing partial-data sets respectively corresponding to different ones of
10 the articles;

11 a memory containing a new image of a merged item composed of merged representations
12 of the different ones of the articles and the structure.

1 7. The arrangement of claim 1, wherein the partial data sets include a size code.

1 8. The arrangement of claim 1, wherein the host-site, which is accessible to an on-line
2 viewer, is configured and arranged to limit a maximum amount of storage space in the virtual
3 closet provided for the on-line viewer.

1 9. A method for on-line viewing of an article on another structure, comprising:
2 providing a host-site accessible to an on-line viewer and web-linkable to at least one
3 article-provider site, the article provider-site having images of articles for view via the web;
4 linking the on-line viewer to the host-site and selecting a structure in response to a
5 command received by the on-line viewer;
6 using the host-site, linking the viewer to the at least one article-provider site and passing
7 at least one image from a virtual storage closet at that site for view by the on-line viewer;
8 merging a selected one of the articles with the structure by forming an image of a merged
9 item including representations of both the structure and the selected article.

1 10. A method for on-line viewing of an article on another structure, comprising:
2 providing a host-site accessible to an on-line viewer and web-linkable to at least one
3 article-provider site, the article provider-site having images of articles for view via the web;
4 linking the on-line viewer to the host-site and selecting a structure in response to a
5 command received by the on-line viewer;

6 using the host-site, linking the viewer to the at least one article-provider site and passing
7 at least one image to a virtual storage closet at that site for view by the on-line viewer for use
8 during a subsequent access to the host-site;

9 merging a selected one of the articles with the structure by forming an image of a merged
10 item including representations of both the structure and the selected article.

1 11. The method of claim 10, wherein the host-site, which is accessible to an on-line viewer, is
2 configured and arranged to limit a maximum amount of storage space provided in the virtual
3 storage closet for the on-line viewer.

1 12. The method of claim 10, wherein the host-site, which is accessible to an on-line viewer, is
2 configured and arranged to limit the accessibility of the virtual storage closet provided for the on-
3 line viewer to at least one of: a storage space limit, and a time limit.

1 13. The method of claim 12, wherein the limit is a fixed time limit.

1 14. The method of claim 12, wherein the limit is a variable time limit set as a function of
2 financial consideration provided by the on-line user.

1 15. The method of claim 12, wherein the limit is a variable time limit reset as a function of
2 periodic financial payments provided by the on-line user.

1 16. A system for on-line viewing of an article on another structure, comprising:
2 host-computer means accessible to an on-line viewer and web-linkable to at least one
3 article-provider site, the article provider-site having images of articles for view via the web;
4 means for linking the on-line viewer to the host-site and selecting a structure in response
5 to a command received by the on-line viewer;
6 the host-computer means and the linking means also for linking the viewer to the at least
7 one article-provider site and passing at least one image to a virtual storage closet at that site for
8 view by the on-line viewer for limited use during a subsequent access to the host-site;

9 means for merging a selected one of the articles with the structure by forming an image of
10 a merged item including representations of both the structure and the selected article.

- 1 17. A system for on-line viewing of an article on another structure, comprising:
2 a computer-driven web-linking engine communicatively coupling data between an article-
3 provider site and on-line viewer site; and
4 the computer-driven web-linking engine configured and arranged to create an item from
5 image-data corresponding to an article selected by an on-line viewer from the on-line viewer site
6 with an image of a structure selected by the on-line viewer.

Abstract

An e-commerce method involves on-line viewing of a first article through a linking node for virtual merging on another structure. A particular application of the invention is directed to a method of on-line apparel shopping. The method includes providing a host-site accessible to an on-line viewer (customer) and web-linkable to a retailer having an apparel site. The retailer's apparel site has images of articles stored in a virtual closet. These articles can be apparel from retail stores for viewing over the web, and the on-line viewer is linked to the host-site. The consumer selects a structure, such as a photograph of a person captured in system memory, in response to a command received by the on-line viewer. Using the host-site, the viewer or customer is linked to the retailer's apparel site and images are passed from that site for view by the customer. Apparel is selected and virtually merged with the structure by forming an image including representations of both the structure and the selected apparel.

Fig. 1

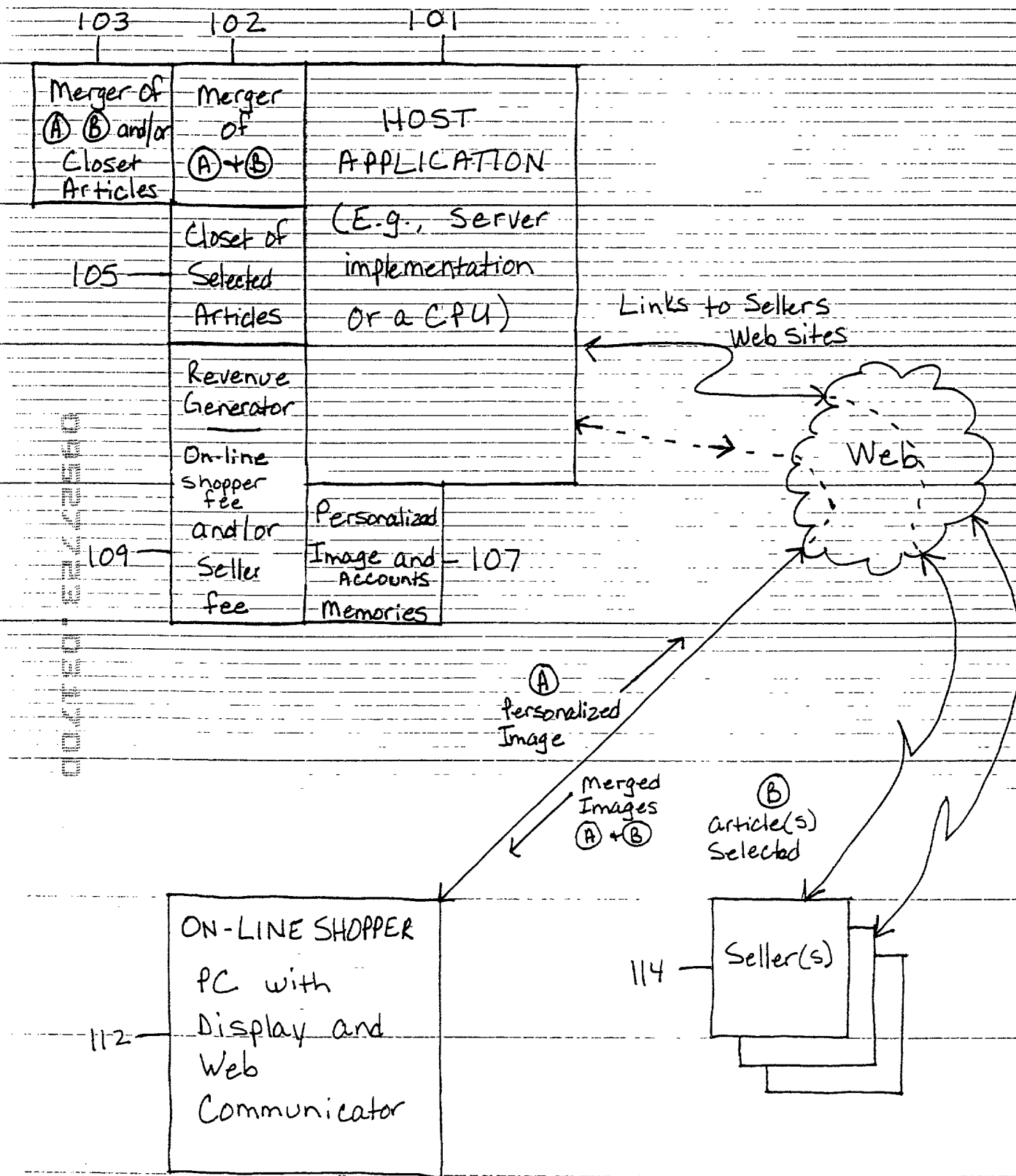
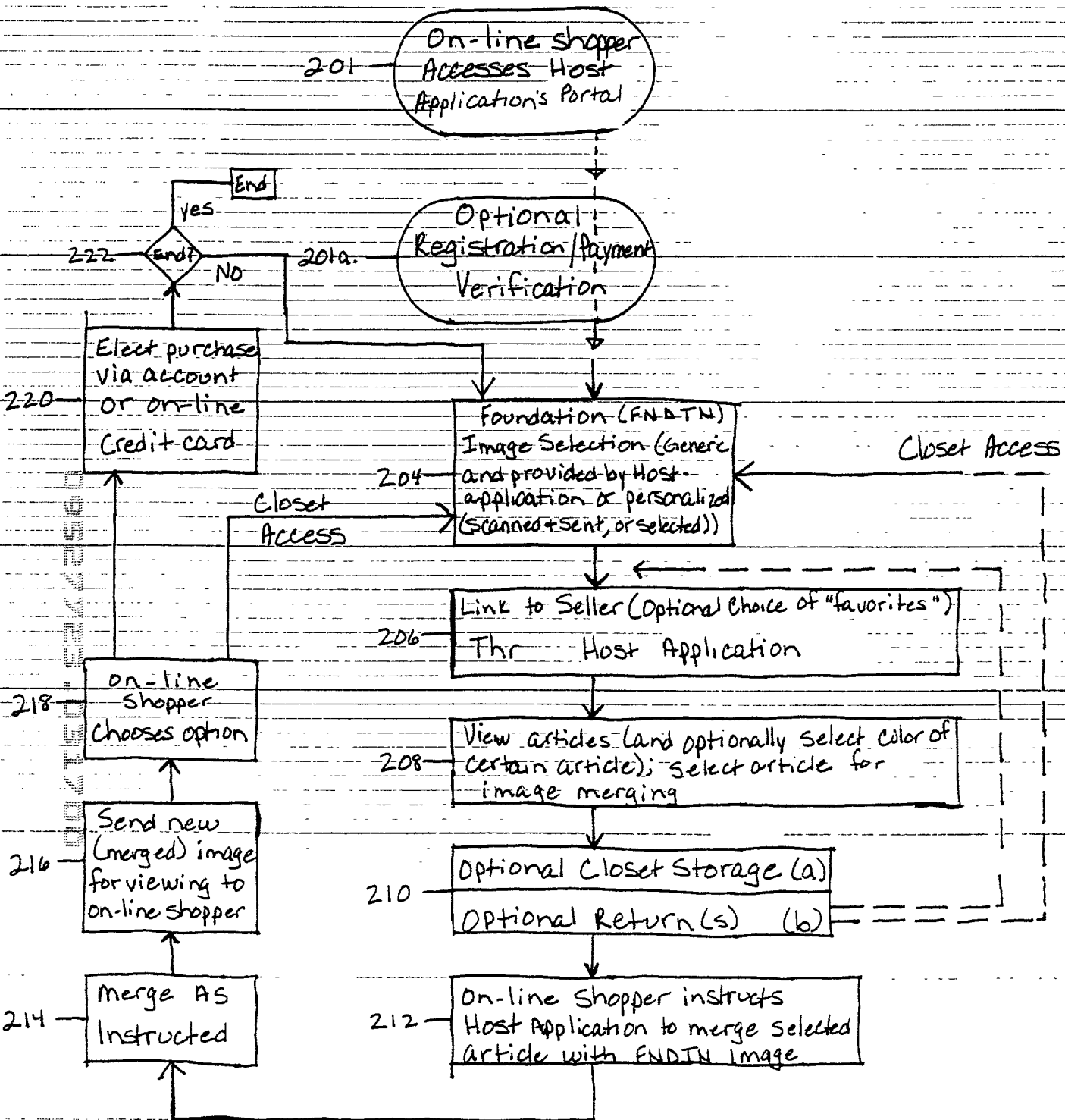


Fig. 2

GIAN. 03 PA



Docket No. JARB.03PA

CRAWFORD PLLC

United States Patent Application

DECLARATION UNDER 37 C.F.R. § 1.63

As a below named inventor I hereby declare that: my residence, post office address and citizenship are as stated below next to my name; that

I verily believe I am the original, first and sole inventor (if only one name is listed below) or a joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: **Merged Images Viewed Via A Virtual Storage Closet.**

The specification of which

- a. ☒ is attached hereto
 b. ☒ is entitled **Merged Images Viewed Via A Virtual Storage Closet**, having attorney docket number JARB.03PA.
 c. ☐ was filed on _____ as application serial no. _____ and was amended on _____ (if applicable) (in the case of a PCT-filed application) described and claimed in international no. _____ filed _____ and as amended on _____ (if any), which I have reviewed and for which I solicit a United States patent.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with Title 37, Code of Federal Regulations, § 1.56 (attached hereto).

I hereby claim foreign priority benefits under Title 35, United States Code, § 119/365 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on the basis of which priority is claimed:

- a. ☒ no such applications have been filed.
 b. ☐ such applications have been filed as follows:

FOREIGN APPLICATION(S), IF ANY, CLAIMING PRIORITY UNDER 35 USC § 119			
COUNTRY	APPLICATION NUMBER	DATE OF FILING (day, month, year)	DATE OF ISSUE (day, month, year)
ALL FOREIGN APPLICATION(S), IF ANY, FILED BEFORE THE PRIORITY APPLICATION(S)			
COUNTRY	APPLICATION NUMBER	DATE OF FILING (day, month, year)	DATE OF ISSUE (day, month, year)

I hereby claim the benefit under Title 35, United States Code, § 120/365 of any United States and PCT international application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application.

U.S. APPLICATION NUMBER	DATE OF FILING (day, month, year)	STATUS (patented, pending, abandoned)
09/515,284	February 29, 2000	Pending

I hereby claim the benefit under Title 35, United States Code § 119(e) of any United States provisional application(s) listed below:

U.S. PROVISIONAL APPLICATION NUMBER	DATE OF FILING (Day, Month, Year)
60/167,493	November 24, 1999
60/159,476	October 14, 1999

I hereby authorize personnel at the U.S. Patent and Trademark Office to act and rely on instructions from and communicate directly with the person/assignee/attorney/firm/ organization who/which first sends/sent this case to them and by whom/which I hereby declare that I have consented after full disclosure to be represented unless/until I instruct person/assignee/attorney/firm/ organization to the contrary.

Please direct all correspondence in this case to Crawford PLLC at the address indicated below:

Crawford PLLC
1270 Northland Drive
Suite 390
St. Paul, MN 55120

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

2	Full Name Of Inventor	Family Name GIANNINI	First Given Name ROBERT	Second Given Name
0	Residence & Citizenship	City JERSEY CITY	State or Foreign Country NEW JERSEY	Country of Citizenship USA
1	Post Office Address	Post Office Address 101-42 EAST SHEARWATER COURT	City JERSEY CITY	State & Zip Code/Country NJ/07305/USA
Signature of Inventor 201:			Date: 3/16/00	
2	Full Name Of Inventor	Family Name	First Given Name	Second Given Name
0	Residence & Citizenship	City	State or Foreign Country	Country of Citizenship
1	Post Office Address	Post Office Address	City	State & Zip Code/Country
Signature of Inventor 202:			Date:	
2	Full Name Of Inventor	Family Name	First Given Name	Second Given Name
0	Residence & Citizenship	City	State or Foreign Country	Country of Citizenship
1	Post Office Address	Post Office Address	City	State & Zip Code/Country
Signature of Inventor 203:			Date:	
2	Full Name Of Inventor	Family Name	First Given Name	Second Given Name
0	Residence & Citizenship	City	State or Foreign Country	Country of Citizenship
1	Post Office Address	Post Office Address	City	State & Zip Code/Country
Signature of Inventor 204:			Date:	

§ 1.56 Duty to disclose information material to patentability.

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is canceled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is canceled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim;
- (2) It refutes, or is inconsistent with, a position the applicant takes in:
 - (i) Opposing an argument of unpatentability relied on by the Office, or
 - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

- (1) Each inventor named in the application;
 - (2) Each attorney or agent who prepares or prosecutes the application; and
 - (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.
- (d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.